

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-814 REV. C  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS  
ICA-D412-814 REV. 2 OR LATER APPROVED REVISIONS  
REF TCCA STC: SH12-37

## 1.0 PURPOSE

This Dart Service Instruction (DSI) provides a hardware update to the D412-814-019 Crew Door with DART S/N S168968. The crew door should be installed per IIN-D412-814 and maintained per ICA-D412-814. However, window fasteners and door latch fasteners have changed as outlined in this service instruction.

## 2.0 PARTS LIST, REPLACEMENT PARTS (D412-814-019 S/N 168968 ONLY)

The replacement latch mechanism hardware for D412-814-019 S/N 168968 is the D412-814-111 kit. The part list in section 6.0 (pg. 28) of IIN-D412-814 Rev C and section 52.15 (pg. 36) of ICA-D412-814 Rev 2 is modified as shown below. See Figure 1 of this service instruction for reference.

| QTY<br>-111 | QTY<br>-112 | QTY<br>-121 | QTY<br>-122 | PART NUMBER  | DESCRIPTION                                   |
|-------------|-------------|-------------|-------------|--------------|---|
| X           |             |             |             | D412-814-111 | LH REPLACEMENT LATCHING MECHANISM (DART DOOR) |
|             | X           |             |             | D412-814-112 | RH REPLACEMENT LATCHING MECHANISM (DART DOOR) |
|             |             | X           |             | D412-814-121 | LH REPLACEMENT HINGES                         |
|             |             |             | X           | D412-814-122 | RH REPLACEMENT HINGES                         |

IS:

|   |  |  |  |             |                    |
|---|--|--|--|-------------|--------------------|
| 2 |  |  |  | MS24694-S56 | SCREW, COUNTERSUNK |
|---|--|--|--|-------------|--------------------|

WAS:

|   |  |  |  |            |                    |
|---|--|--|--|------------|--------------------|
| 2 |  |  |  | MS24694-S4 | SCREW, COUNTERSUNK |
|---|--|--|--|------------|--------------------|


CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**

BY:   
D. SHEPHERD (DE # 02)

DATE: 19.04.03  
CERT. NO.: SH12-37  
ISSUE NO.: 1

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|------------|--|---|--------------|
| DESIGN     | MBB  | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA  |              |
| DRAWN      | MBB  |   |              |
| CHECKED    | CP   | DRAWING NO.<br><b>DSI 9824</b>  | REV. A       |
| MFG. APPR. | N/A  |   | SHEET 1 OF 4 |
| APPROVED   | VS   | TITLE   | SCALE        |
| DE APPR.   | DS  | <b>HARDWARE UPDATE</b>  | NTS          |
| DATE       | 19.04.03   | <small>COPYRIGHT © 2019 BY DART AEROSPACE LTD.<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br/>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br/>WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |

### 3.0 PARTS LIST, WINDOW KITS (D412-814-019 S/N 168968 ONLY)

The replacement bubble window for D412-814-019 S/N 168968 is the D412-814-219 kit. The part list in section 7.0 (pg. 29) of IIN-D412-814 Rev C and section 52.16 (pg. 37) of ICA-D412-814 Rev 2 is modified as shown below. See Figure 2 of this service instruction for reference.

| QTY<br>-211 | QTY<br>-212 | QTY<br>-213 | QTY<br>-214 | QTY<br>-215 | QTY<br>-216 | QTY<br>-217 | QTY<br>-218 | QTY<br>-219 | QTY<br>-220 | PART NUMBER  | DESCRIPTION                                   |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---|
| X           |             |             |             |             |             |             |             |             |             | D412-814-211 | LH REPLACEMENT STANDARD FLAT WINDOW KIT       |
|             | X           |             |             |             |             |             |             |             |             | D412-814-212 | RH REPLACEMENT STANDARD FLAT WINDOW KIT       |
|             |             | X           |             |             |             |             |             |             |             | D412-814-213 | LH REPLACEMENT HALF HEIGHT COMFORT WINDOW KIT |
|             |             |             | X           |             |             |             |             |             |             | D412-814-214 | RH REPLACEMENT HALF HEIGHT COMFORT WINDOW KIT |
|             |             |             |             | X           |             |             |             |             |             | D412-814-215 | LH REPLACEMENT HALF HEIGHT BUBBLE WINDOW KIT  |
|             |             |             |             |             | X           |             |             |             |             | D412-814-216 | RH REPLACEMENT HALF HEIGHT BUBBLE WINDOW KIT  |
|             |             |             |             |             |             | X           |             |             |             | D412-814-217 | LH REPLACEMENT FULL HEIGHT COMFORT WINDOW KIT |
|             |             |             |             |             |             |             | X           |             |             | D412-814-218 | RH REPLACEMENT FULL HEIGHT COMFORT WINDOW KIT |
|             |             |             |             |             |             |             |             | X           |             | D412-814-219 | LH REPLACEMENT FULL HEIGHT BUBBLE WINDOW KIT  |
|             |             |             |             |             |             |             |             |             | X           | D412-814-220 | RH REPLACEMENT FULL HEIGHT BUBBLE WINDOW KIT  |

IS:

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|--|--|--|--|--|--|--|--|----|--|---------------|--------|
|  |  |  |  |  |  |  |  | 27 |  | AN3-6A        | BOLT   |
|  |  |  |  |  |  |  |  | 1  |  | AN526-832R14  | SCREW  |
|  |  |  |  |  |  |  |  | 29 |  | NAS1149D0332J | WASHER |
|  |  |  |  |  |  |  |  | 1  |  | NAS1149DN832J | WASHER |

WAS:

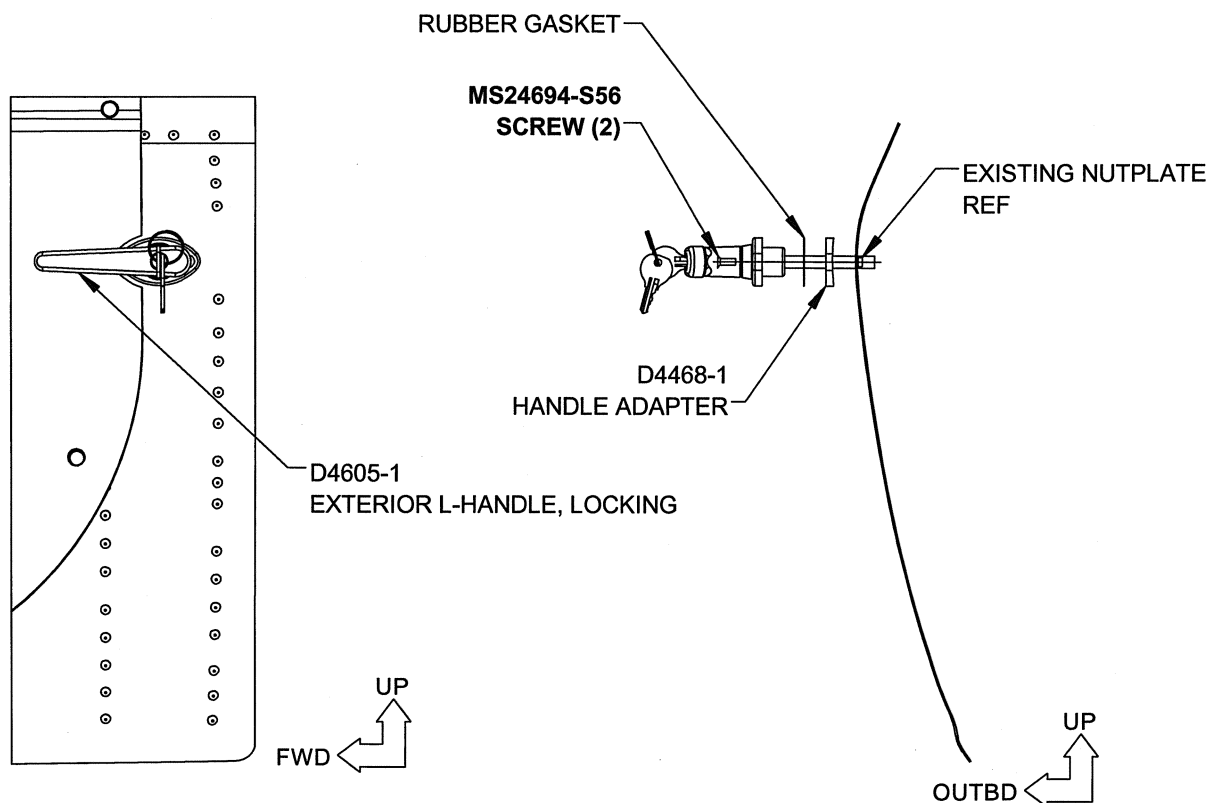
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|--|--|--|--|--|--|--|--|----|--|---------------|--------|
|  |  |  |  |  |  |  |  | 28 |  | AN3-6A        | BOLT   |
|  |  |  |  |  |  |  |  | 30 |  | NAS1149D0332J | WASHER |

### 4.0 WEIGHT AND BALANCE:

There is no weight and balance change associated with this service instruction.

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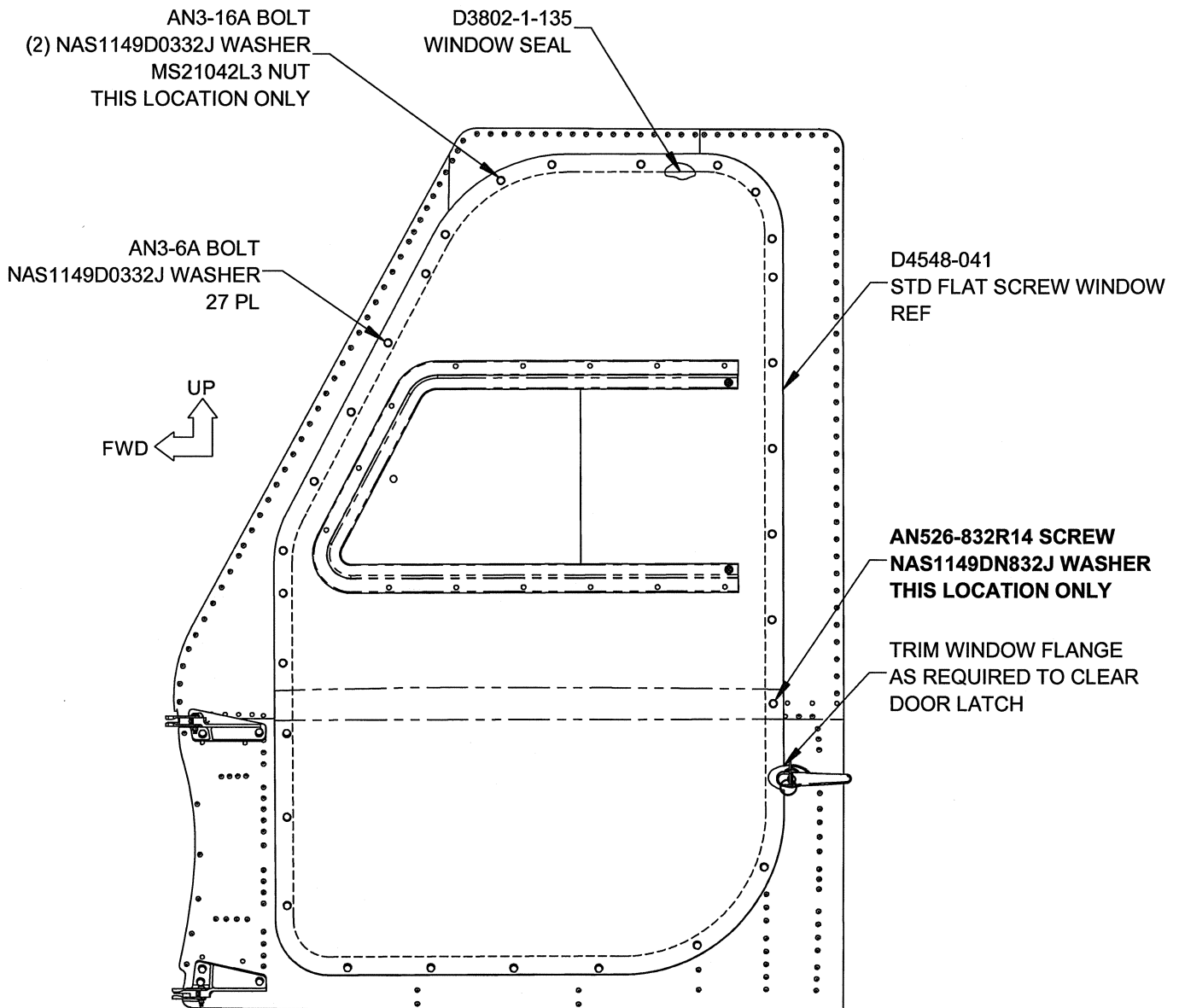
|            |          |   |              |
|------------|----------|---|--------------|
| DESIGN     | MBB      | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA  |              |
| DRAWN      | MBB      |   |              |
| CHECKED    | CP       | DRAWING NO.   | REV. A       |
| MFG. APPR. | N/A      | DSI 9824  | SHEET 2 OF 4 |
| APPROVED   | VS       | TITLE   | SCALE        |
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**FIGURE 1 - D412-814-111 REPLACEMENT LATCHING MECHANISM  
FOR D412-814-019 S/N 168968 ONLY**

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| MFG. APPR. | N/A      | DSI 9824  | SHEET 3 OF 4 |
| APPROVED   | VS       | TITLE   | SCALE        |
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**FIGURE 2 - D412-814-219 REPLACEMENT BUBBLE WINDOW KIT  
FOR D412-814-019 S/N 168968 ONLY**

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| CHECKED    | CP       | DRAWING NO.   | REV. A       |
| MFG. APPR. | N/A      | DSI 9824  | SHEET 4 OF 4 |
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